

REMARKS

The Applicants have carefully reviewed and considered the Examiner's Action mailed July 14, 2006. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, claims 1 and 15 are amended employing the definite article "the" to emphasize that "the device onto which a device is displayed is a communications hub of the display system arranged to receive control signals from the pointing device and/or the at least one remote signaling device". These are believed to be clarifying amendments that reflect limitations already present in the claims. Accordingly, claims 1-20 are pending in the present application.

Claims 1, 4-5, 7, 10, 13, 15, and 17-19 were rejected under 35 U.S.C. §102 (b) as being anticipated by U.S. Patent No. 6,683,628 to Nakagawa et. al. (hereinafter referred to as "Nakagawa") as described in the paragraphs spanning pages 2-5 of the Action. This rejection is respectfully traversed.

Nakagawa is directed to a human interactive type display system where, as the Examiner suggests, there is provided a projector (3), a display device or whiteboard (2), computing means (4) and a pen (1). Pen (1) of Nakagawa is disclosed as marking positions direction on the whiteboard (2). This is not the recited "at least one remote signaling device", as required by claims 1 and 15. Pen (1) is not remote and is a pointing device.

The claimed invention, for example with reference to Figures 1 and 2, is directed to an interactive system that includes a pointing device (16) at the display device or whiteboard (10) and includes one or more remote signaling devices (18). These remote

signaling devices (18) are preferably audience response devices and are **remote** from the display device or whiteboard (10). In contrast, Nakagawa does not disclose a remote signaling device in addition to pointing devices. Independent claims 1 and 15 require both a pointing device and a remote signaling device. One element of Nakagawa cannot serve as both recited elements. Further, pen (1) of Nakagawa cannot be considered as the recited remote signaling device as its usage requires it to be proximate to the interactive surface of the whiteboard (2) of Nakagawa.

Thus, independent claims 1, 15 and 18 are distinct over Nakagawa because:

1. The pointing device (1) of Nakagawa is not a remote signaling device; and
2. Claims 1 and 15 require both a pointing device and at least one remote signaling device (i.e., two distinct functional entities).

Consequently, Nakagawa cannot anticipate claims 1, 4-5, 7, 10, 13, 15, and 17-19 because it fails to disclose each and every recited feature of the claims. Withdrawal of the rejection under 35 U.S.C. § 102 (b) is respectfully requested.

Claims 2 and 3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,561,446 to Montlick for the reasons set forth in the paragraphs spanning pages 5-6 of the Action. Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,583,323 to Zurstadt as described in the paragraphs spanning pages 6-7 of the Action. Claims 8 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,790,114 to Geaghan for the reasons set forth in paragraphs spanning pages 7-8 of the Action. Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 4,538,993 to Krumholz as

described in the middle paragraph of page 8 of the Action. Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,689,562 to Hassan et al. (hereinafter referred to as “Hassan” as described in the paragraph spanning pages 8-9 of the Action. Claims 14 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,528,235 to Lin et al. (hereinafter referred to as “Lin”) and U.S. Patent No. 5,854,621 to Junod et al. (hereinafter referred to as “Junod”), respectively for the reasons set forth in paragraphs spanning pages 9-10 of the Action. Finally, claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of Montlick and Junod as explained in the paragraph spanning pages 10-11 of the Action. These rejections are respectfully traversed.

The secondary references are applied for specific features set forth in the depending claims. As the Action acknowledges, “Nakagawa does not teach an interactive whiteboard display system in which the device onto which an image is projected uses a single communications link between it and the computing means, which link is arranged to convey signals both from the pointing device and the at least one remote signaling device to enable efficient transfer of data.” See page 5, second to last line to page 6, line 3 of the Action. Montlick is directed to a method and apparatus for wireless remote information retrieval and pen-based data entry. Montlick simply discloses a plurality of tablets with a pen attached to a respective tablet where a wireless link connects the plurality of tablets with a pen to a computer system. Montlick does not disclose a device onto which a image is projected or a remote signaling device that is operable to transmit signals to a receiver portion of the device onto which an image is projected. Thus,

Montlick fails to teach or suggest a whiteboard display system with remote signaling devices that transmit signals to the device onto which an image is projected and a pointing device that is proximate to the interactive display system. Consequently, one of ordinary skill in the art would not have been motivated to modify Nakagawa with remote signaling devices as Montlick does not teach a system employing both a pointing device and remote signaling devices for interaction with a central display device. Thus, claims 2-3 are patentable over any combination of Nakagawa and Montlick. Withdrawal of this rejection is respectfully requested.

Claims 6 adds the feature of a whiteboard display system that is operable to calibrate the location of an image on the device onto which an image is projected relative to the device onto which an image is projected. It is the Action's position that Zurstadt teaches the feature of claim 6. However, Zurstadt is directed to a graphic data-acquisition tracking system where an electromagnetic radiation is created in close proximity to a writing surface for the purpose of tracking and following components, such as writing instruments. Zurstadt is not concerned with a plurality of remote signaling devices and thus cannot cure the missing defect of Nakagawa. Withdrawal of the rejection of claim 6 is respectfully requested.

Geaghan et al. was applied for its teachings in column 7, line 15 directed to the priority of pen contact over finger contact. Consequently, there is no motivation to modify the proximate pen and screen of Nakagawa to have a display device that receives control signals and transmits the received controls signals from a remote signaling device to a computing device as set forth in independent claims 1, 15 and 18 of the present invention. Thus, any combination of Geaghan et al. with Nakagawa would fail to achieve

the claimed invention. Withdrawal of this rejection to claims 8 and 12 is respectfully requested.

Krumholz was applied for its teaching of an interrupt row that enables a teacher to cut off reception of particular student computer outputs. In that the primary reference to Nakagawa only discloses a proximate pen used a whiteboard by one individual, it is unclear why one of ordinary skill in the art would be motivated to modify Nakagawa to cut off reception. Krumholz is not concerned with an interactive display system where the display device receives control signals from a remote signaling device and transmits those control signals to a computing means to control an image on the display device. Accordingly, Krumholz cannot cure the defects of Nakagawa and withdrawal of the rejection to claim 9 is respectfully requested.

Hassan, Lin and Junod are all directed to inventions that are different from Applicants' claimed invention. None of these references disclose teach or even suggest, an interactive display system with a device onto which an image is projected from a projector that receives control signal from a remote control device and transmits those signals to a computing means to control an image on the device onto which an image is projected. Accordingly, these secondary references cannot provide the missing teachings or motivation to modify Nakagawa as they are directed to technological different systems. Withdrawal of the rejections to depending claims 11, 14, 16 and 20 is respectfully requested.

For the above stated reasons, it is submitted that all the claims are allowable over the prior art of record and are in condition for allowance. Therefore, it is respectfully submitted that this Amendment After Final Rejection places the application in condition

for allowance; does not raise new issues that require further consideration and/or search as the changes to claims 1 and 15 are clarifying amendments; and do not raise the issue of new matter. Accordingly, Applicant respectfully request that this Amendment After Final Rejection be entered, and that a Notice of Allowance be issued indicating that claims 1-20 are allowable over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is encouraged to telephone the undersigned counsel to arrange such a conference.

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Respectfully submitted,



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